

**Kia** Henry Bzeih

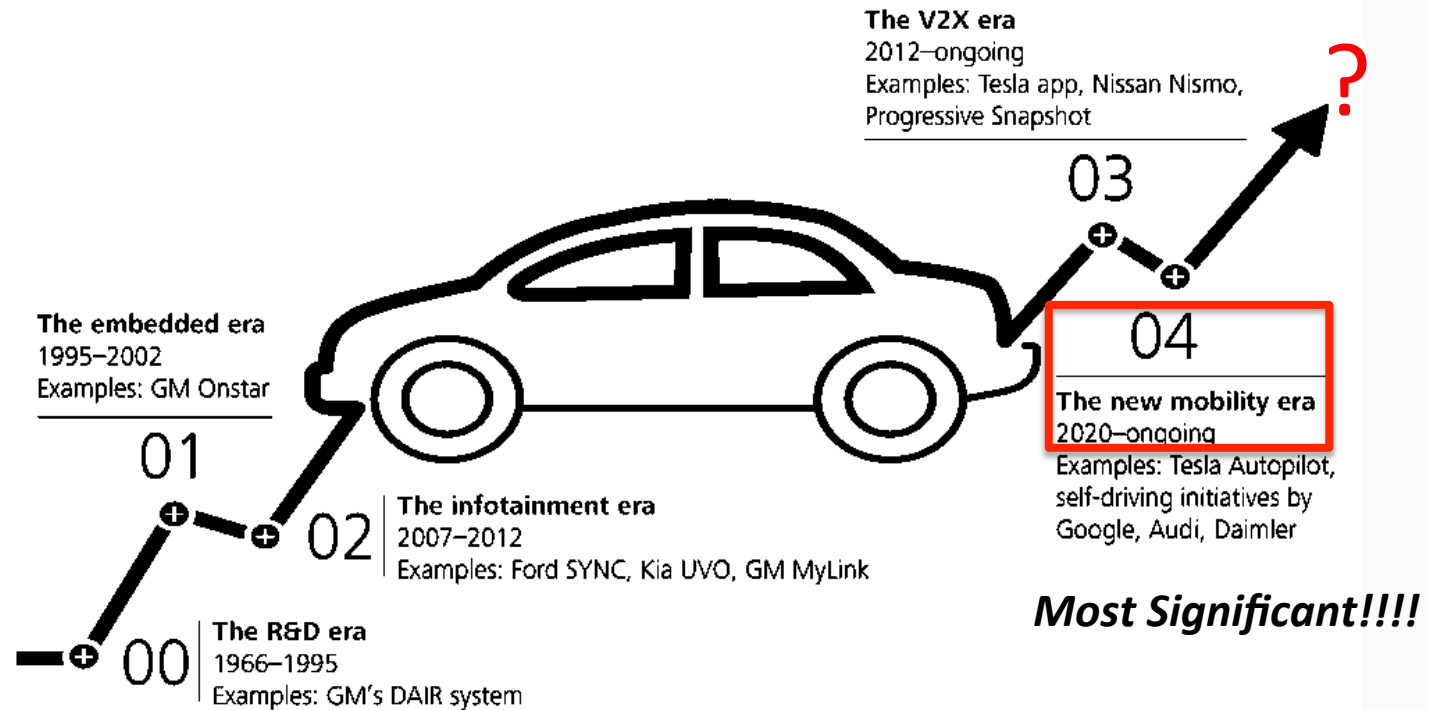
8/8/2017

*“Macro Level Effect”*

*“The future is already here - just not evenly  
distributed”*

*William Gibson*

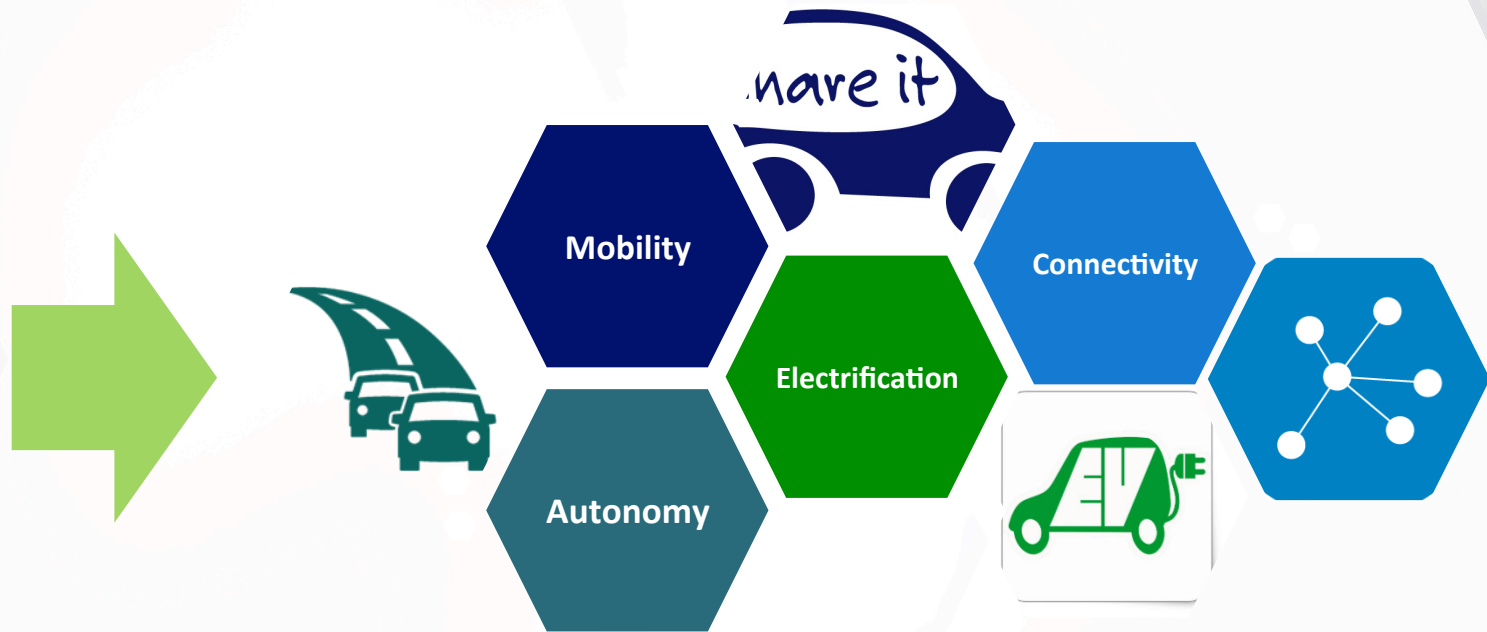
## A timeline of “significant era (s)”



# ***Era of most significant Trends***



# ***Era of the most disruptive Tech***



## Catalysts

## Technology



**Maturing powertrain technologies**



**Battery and fuel-cell electric vehicles** offer higher energy efficiency, lower emissions, greater energy diversity, and new vehicle designs



**Lightweight materials**



**Stronger and lighter materials** are reducing vehicle weight without sacrificing passenger safety



**Rapid advances in connected vehicles**



New vehicles are being outfitted with **vehicle-to-infrastructure (V2I), vehicle-to-vehicle (V2V), and communications technologies**, so every car can know precisely where every other car is on the road



**Shifts in mobility preferences**



Younger generations are leading the way toward **pay-per-use mobility** in place of owning a car; nearly 50% of Gen Y consumers like using a smartphone app for transport and already plan travel so they can multitask









**Emergence of autonomous vehicles**



**Autonomous-drive technology** is no longer a case of science fiction; the question is **when and how** will it become more **mainstream and widely adopted?**

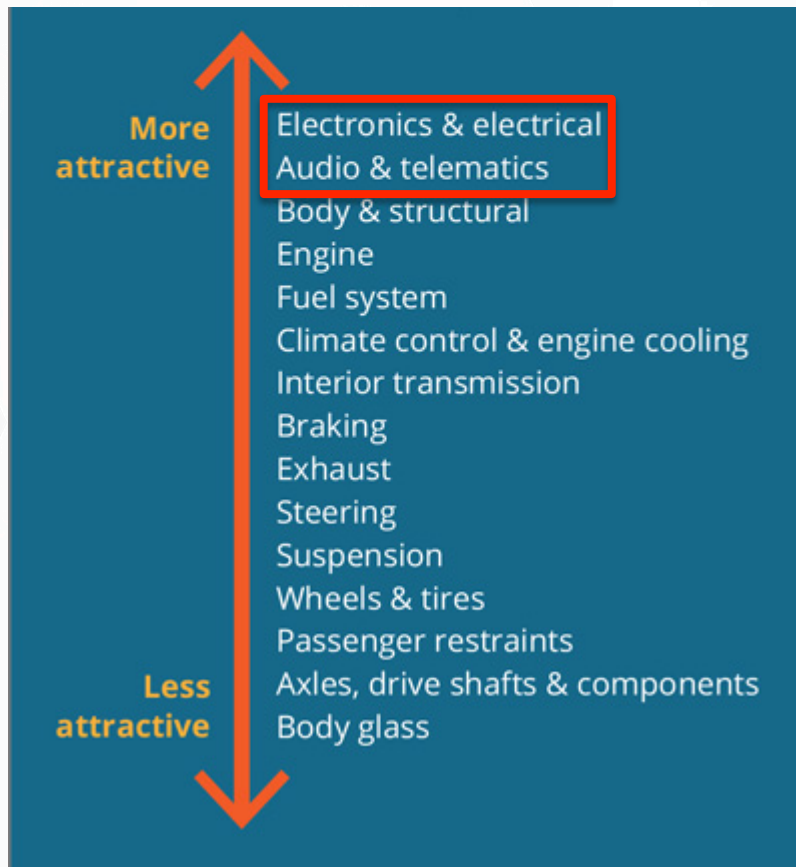
Graphic: Deloitte University Press | DUPress.com

# Far Reaching & Broad Impact

Trends that will have the greatest impact on your business	Top rank		
	#1	#2	#3
Stronger, lighter materials			
Advanced manufacturing			
Autonomous vehicles			
Shared/pay-per-use mobility			
Maturing powertrain technologies			
Increasing connectivity			

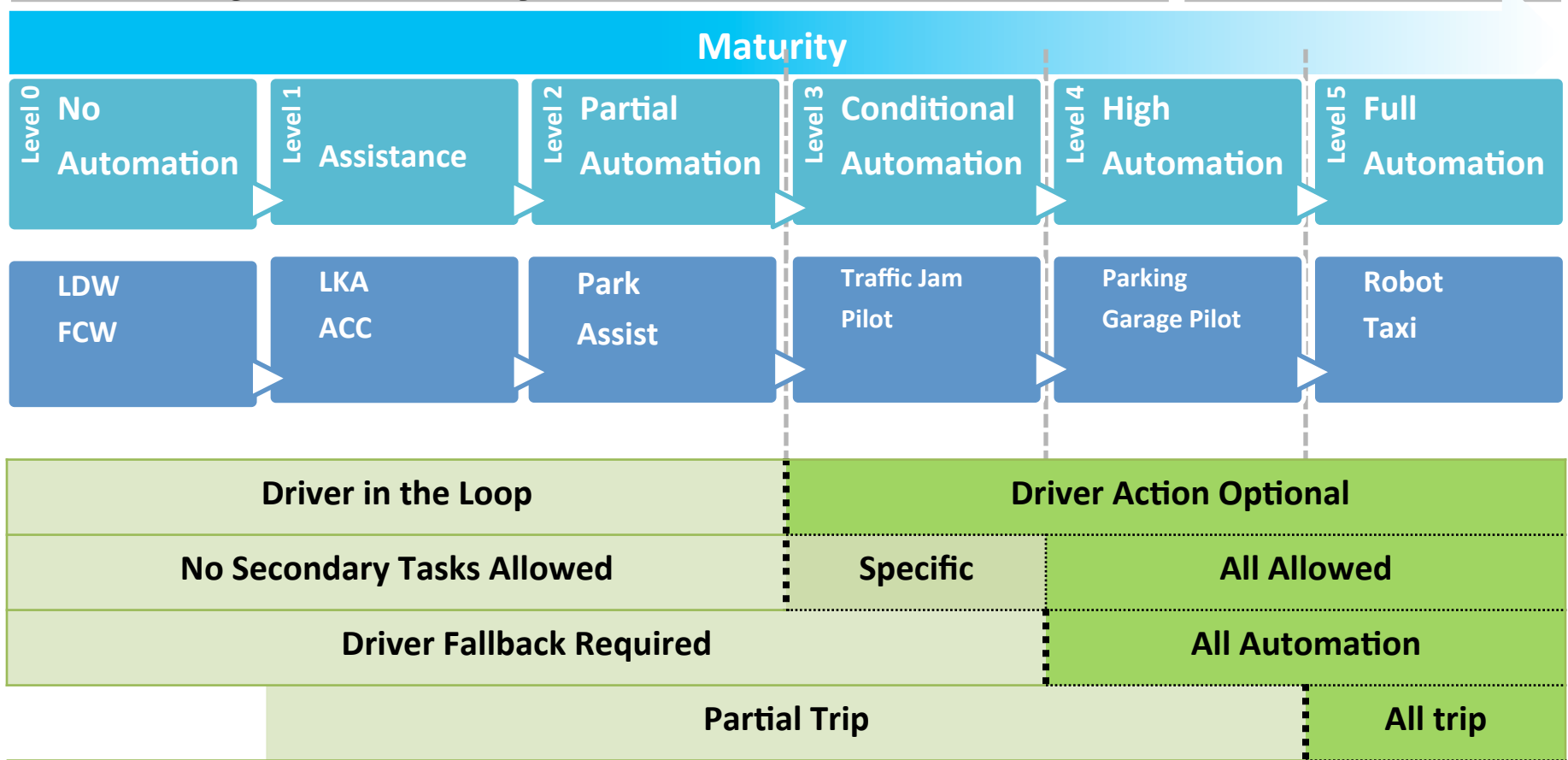
Source: 2016 Deloitte supplier survey on Disruptive Trends

## Segment Prospects for Growth & Profitability



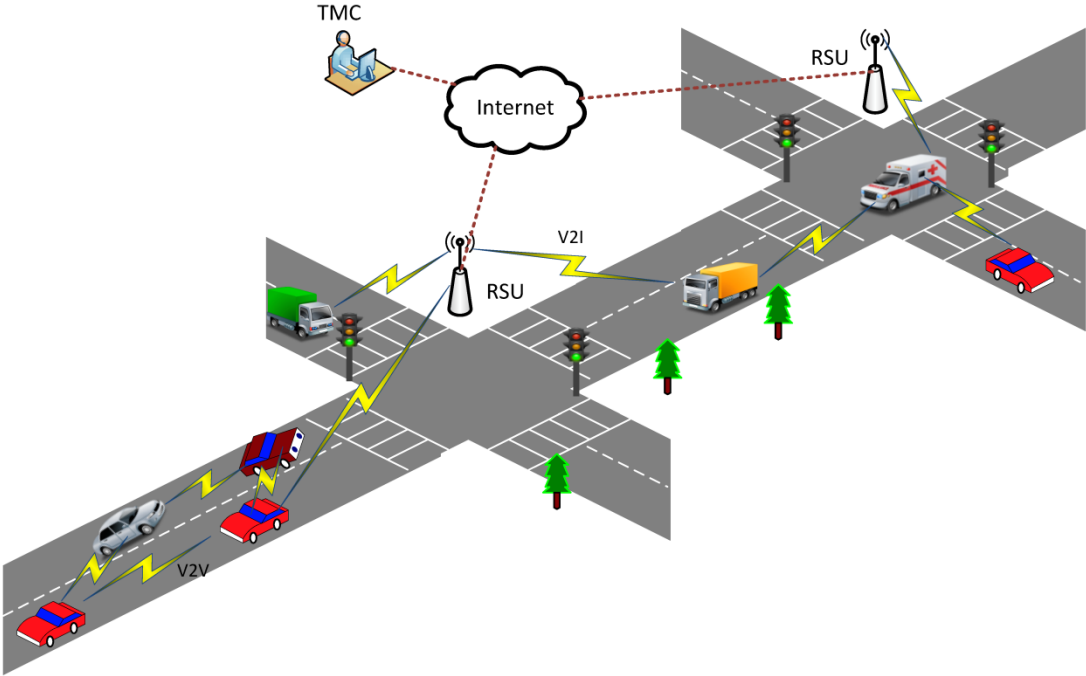


# Levels Of Autonomy

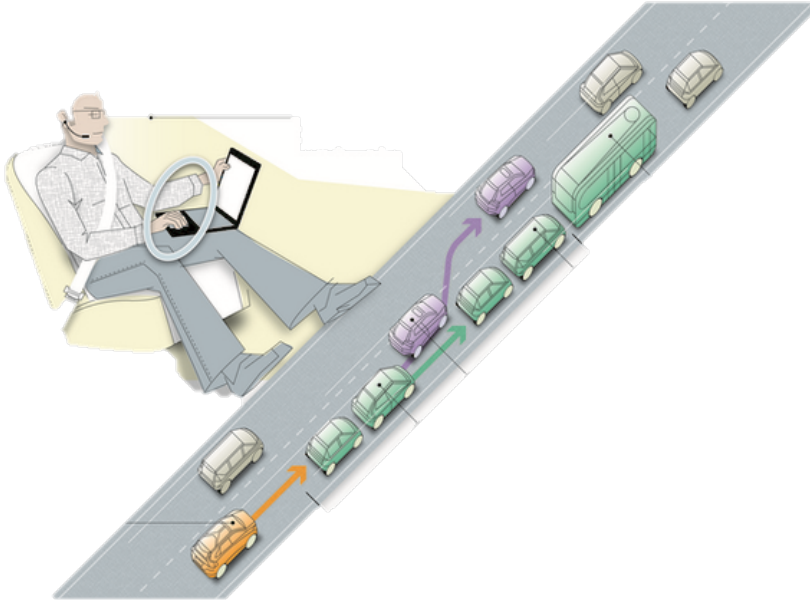


# Examples of “Autonomy Use Cases”

Cooperative Collision Avoidance

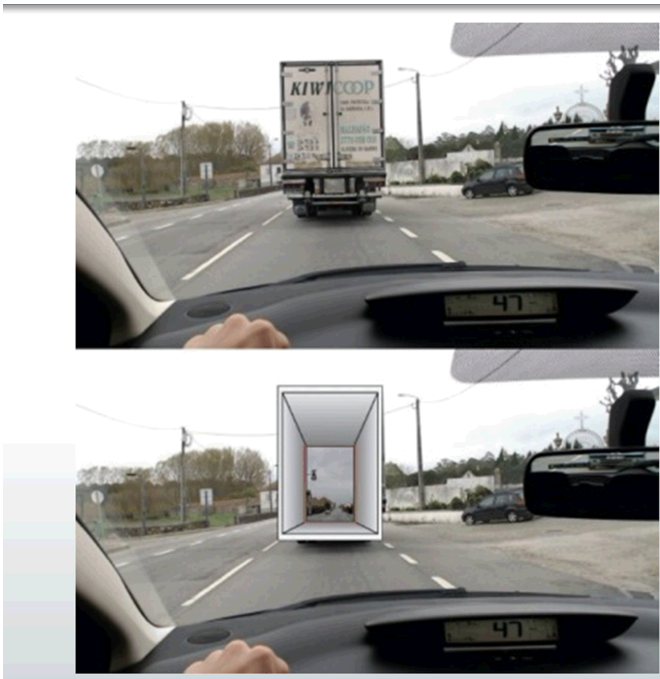


High Density Platooning



# Examples of “Connectivity Use Cases”

See-Through



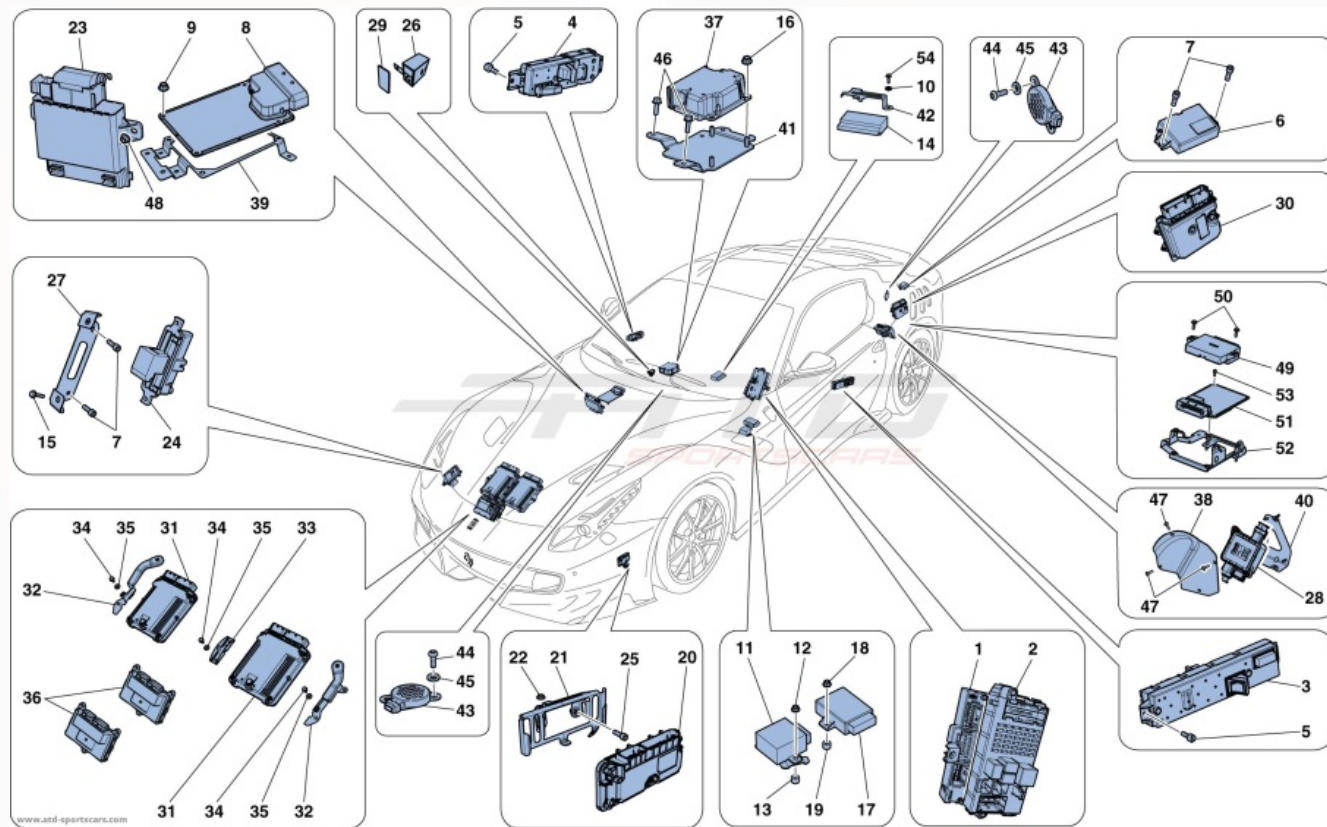
Bird's Eye View



*“Micro Level Effect”*

*“What does this mean to me?”*

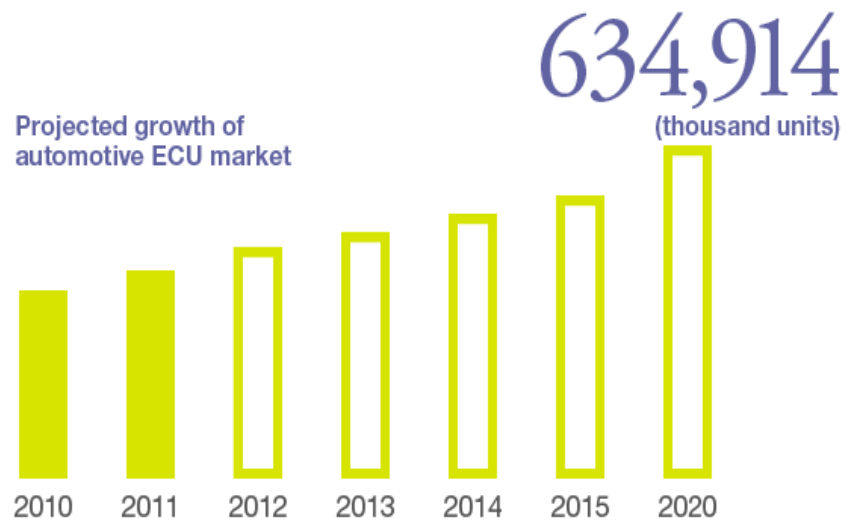
# More ECUs



## On a Global Scale

Worldwide automotive ECU market is growing rapidly!

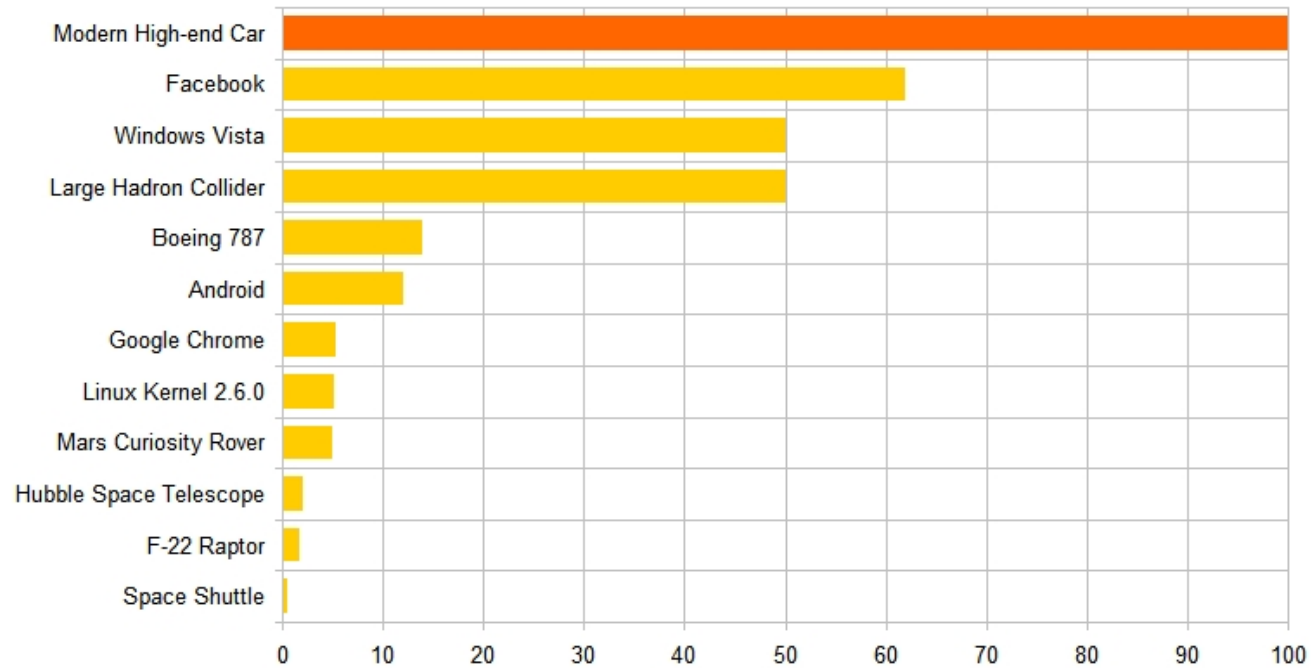
Projected growth of automotive ECU market



\*Data prepared by TDK, based on "Vehicle ECU Analyzing & Market Report 2012" by Fuji Chimera Research Institute, Inc. Surveyed in 2011, the data for 2011 are expected, and data for 2012 and later are projections.

# More Code

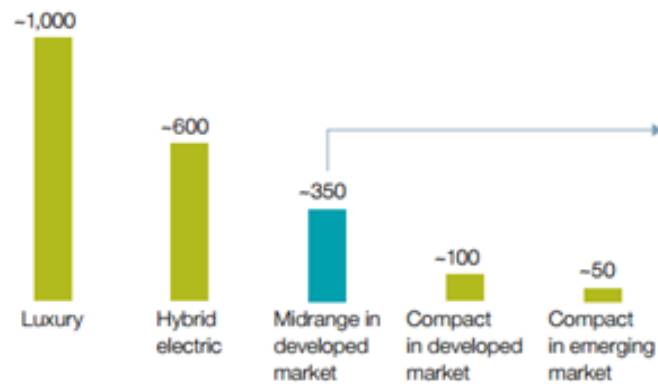
Software Size (million Lines of Code)



# More Silicon

The average automobile has about \$350 of semiconductor content, with nearly 80% of that in microcontroller units, analog, and power.

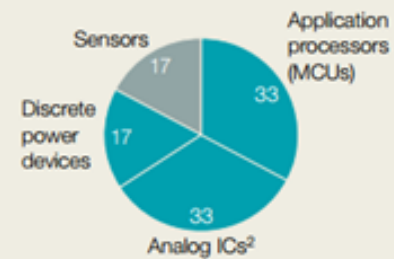
Semiconductor content per car by car type, \$



Market Realist<sup>®</sup>

The average car has ~\$350 of semiconductor content, with 2/3 of that MCUs<sup>1</sup> and analog

Type of semiconductor content in average car, ~\$350 total, %



Source: McKinsey

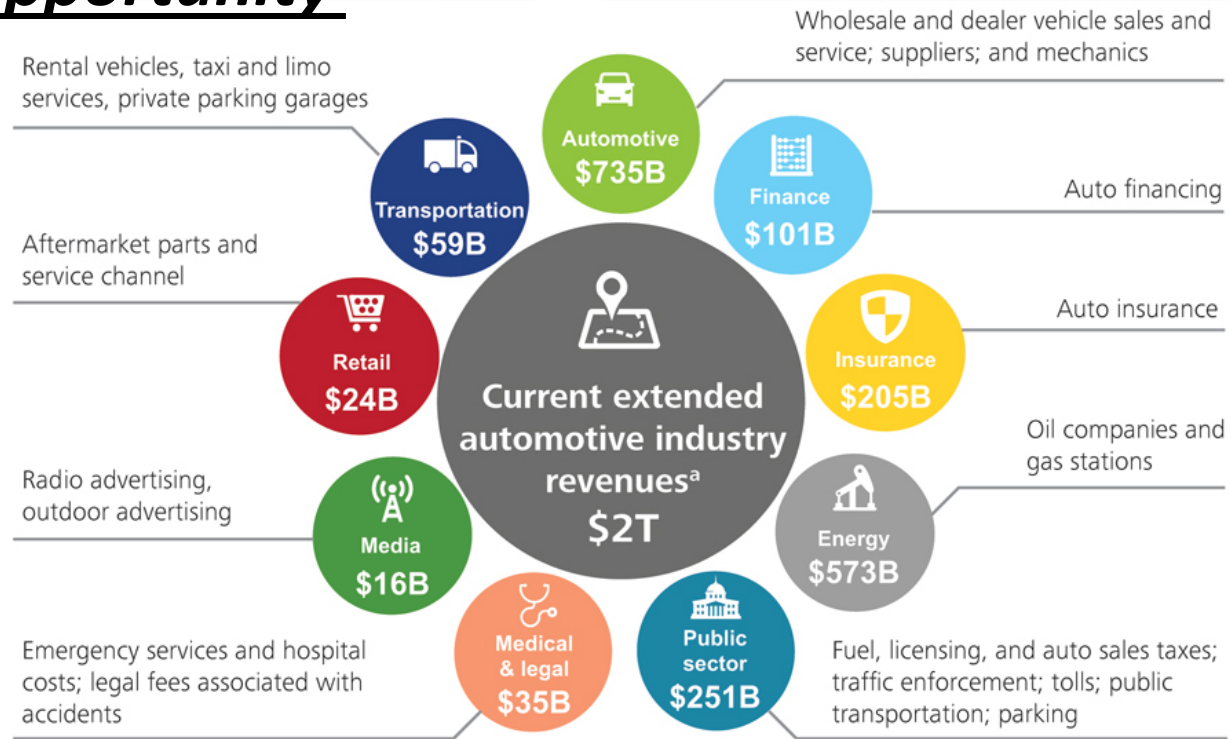




*Closing Thoughts*

*“What’s on everyone’s Mind?”*

# The Opportunity



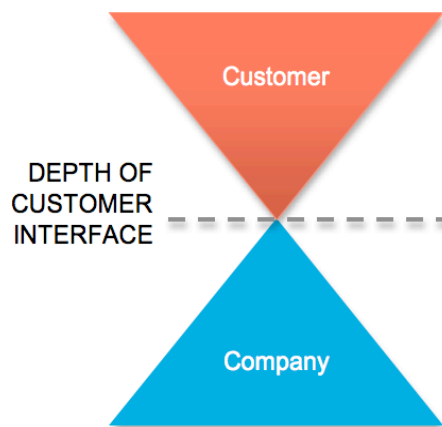
Source: Deloitte analysis based on IBISWorld Industry Reports, IHS, DOT, US Census, EIA, Auto News, TechCrunch. Current revenue represents 2014 figures (or earlier if 2014 data not available) in the United States.

<sup>a</sup>Total revenue is \$1.99T.

Graphic: Deloitte University Press | DUPress.com

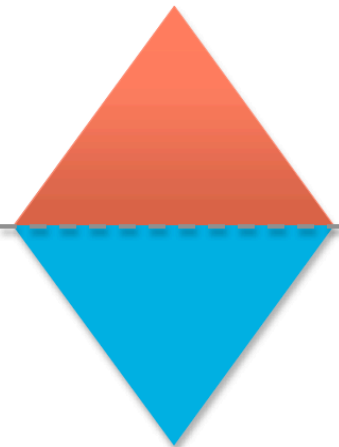
# The Challenge

Product centric model



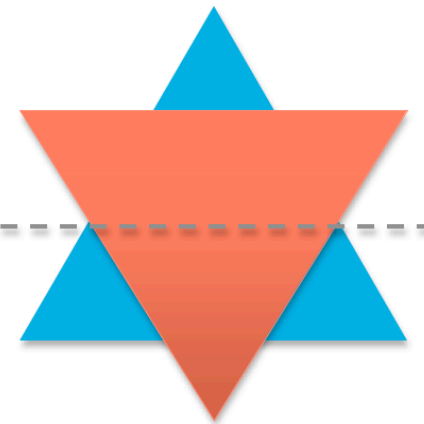
Companies sell and customers  
Buy. Sales driven corporate  
No actual customer relationships

Customer centric model



Customer is in the very heart  
Of the corporate focus. Company  
Is doing its very best in order  
to meet customers' expectations  
And create great customer  
experience

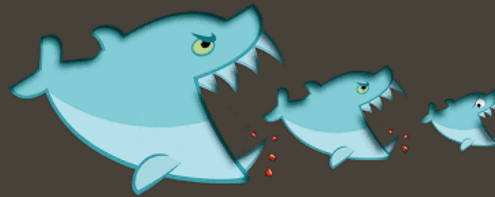
Symbiosis



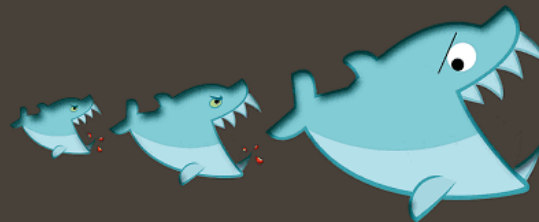
Customers and a company are in  
Solid relationship, need eachothers  
and succeed together.

In the new world,  
it's not the big fish which eats the small fish,  
it's the **fast fish**  
which eats the **slow fish**

**THEN**



**NOW**



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